

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: WILSON POND	Lake Area (ha):	32.54
Town: SWANZEY	Maximum depth (m):	4.6
County: Cheshire	Mean depth (m):	1.7
River Basin: Connecticut	Volume (m ³):	539500
Latitude: 42°54'02" N	Relative depth:	0.7
Longitude: 72°15'44" W	Shore configuration:	1.04
Elevation (ft): 476	Areal water load (m/yr):	5.75
Shore length (m): 2100	Flushing rate (yr ⁻¹):	3.50
Watershed area (ha): 413.6	P retention coeff.:	0.63
% watershed ponded: < 0.10	Lake type:	natural w/dam

BIOLOGICAL:

27 January 1994

14 July 1993

DOM. PHYTOPLANKTON (% TOTAL)	#1	NO PHYTOPLANKTON	NET PHYTOPLANKTON
	#2	RESULTS	SPARSE; NO DOMINANT
	#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)			550
CHLOROPHYLL-A (µg/L)			4.01
DOM. ZOOPLANKTON (% TOTAL)	#1	NO ZOOPLANKTON	NAUPLIUS LARVA 77%
	#2	RESULTS	
	#3		
ROTIFERS/LITER			5
MICROCRUSTACEA/LITER			84
ZOOPLANKTON ABUNDANCE (#/L)			95
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			4.0 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		3.3	7.1
BACTERIA (E. coli, #/100 ml)	#1		1
	#2		4
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:

Lake: WILSON POND
Town: SWANZEY

	27 January 1994		14 July 1993		
DEPTH (m)	1.0	2.5	1.0		3.0
pH (units)	6.1	6.1	7.0		6.8
A.N.C. (Alkalinity)	7.0	9.0	5.9		5.9
NITRATE NITROGEN	0.12	0.25	< 0.02		< 0.02
TOTAL KJELDAHL NITROGEN	0.28	0.37	0.18		0.19
TOTAL PHOSPHORUS	0.006	0.011	0.015		0.014
CONDUCTIVITY (μ mhos/cm)	89.8	109.8	90.6		91.8
APPARENT COLOR (cpu)	14	20	24		24
MAGNESIUM			1.04		
CALCIUM			2.8		
SODIUM			11.6		
POTASSIUM			1.03		
CHLORIDE	16	19	19		19
SULFATE	8	9	5		5
TN : TP	67	56	12		14
CALCITE SATURATION INDEX			3.1		

All results in mg/L unless indicated otherwise

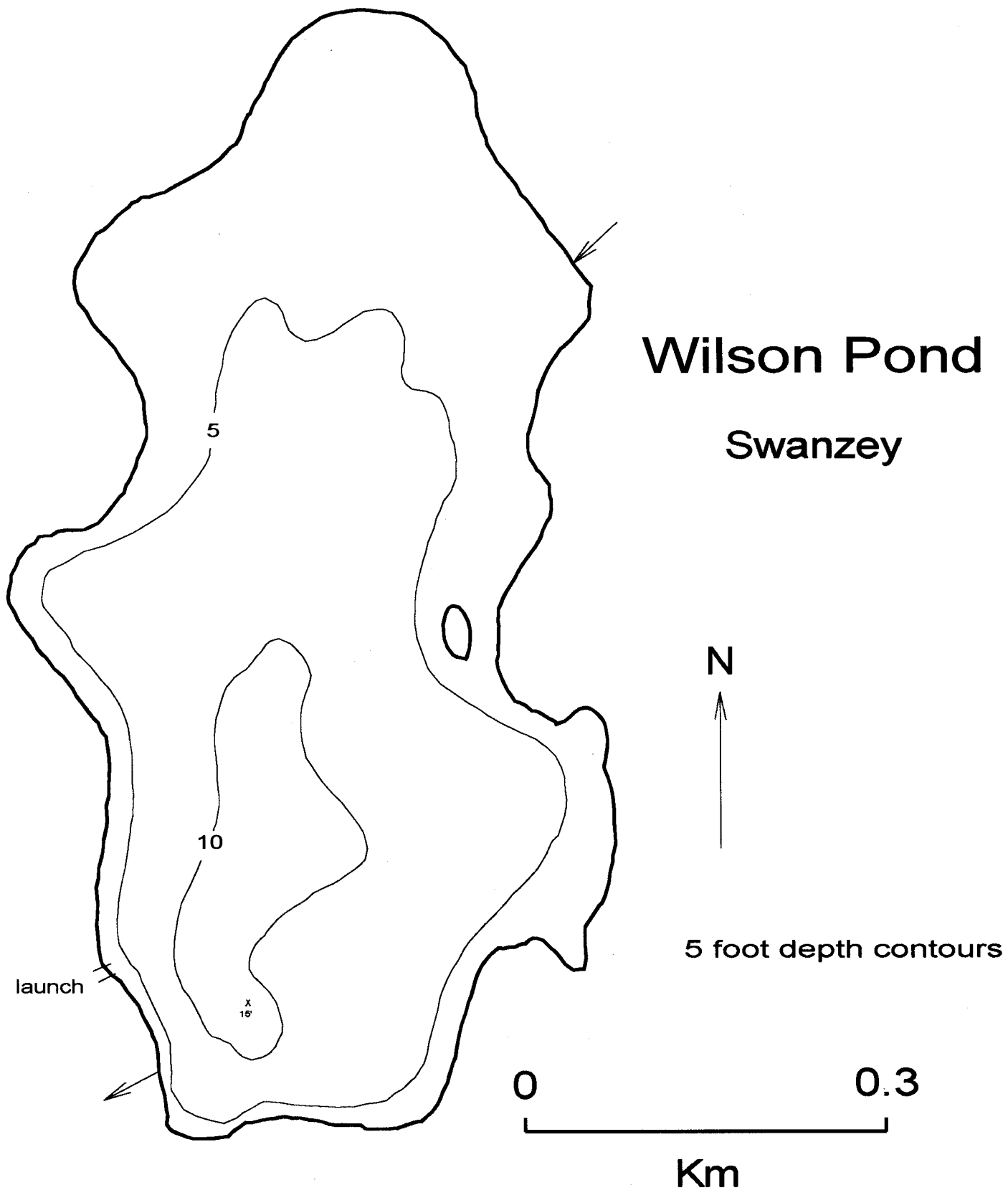
TROPHIC CLASSIFICATION: 1993

D.O. S.D. PLANT CHL TOTAL CLASS

**	1	3	1	5	Meso.
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COMMENTS:

1. A.K.A. Wilson's Pond.
2. This pond was previously surveyed and classified in 1977. There was no change in classification and little change in water quality. There was a significant decrease in total phosphorus in 1993 but the unusually high value in 1977 was probably not valid. VLAP results for 1992-1994 confirm the 1993 survey value. They also confirm the need for the more frequently collected data that VLAP provides.
3. Boat launch was located adjacent to the town beach.
4. Cryptomonas (50%) and Chroomonas (30%) were the dominant genera of wholewater phytoplankton.



FIELD DATA SHEET

LAKE: WILSON POND TOWN: SWANZEY
DATE: 07/14/93 WEATHER: PARTLY CLOUDY; 80'S

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[illegible]

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BOTTOM DEPTH (m):     4.0
                        TIME:  1215

*Dissolved oxygen values are in mg/L
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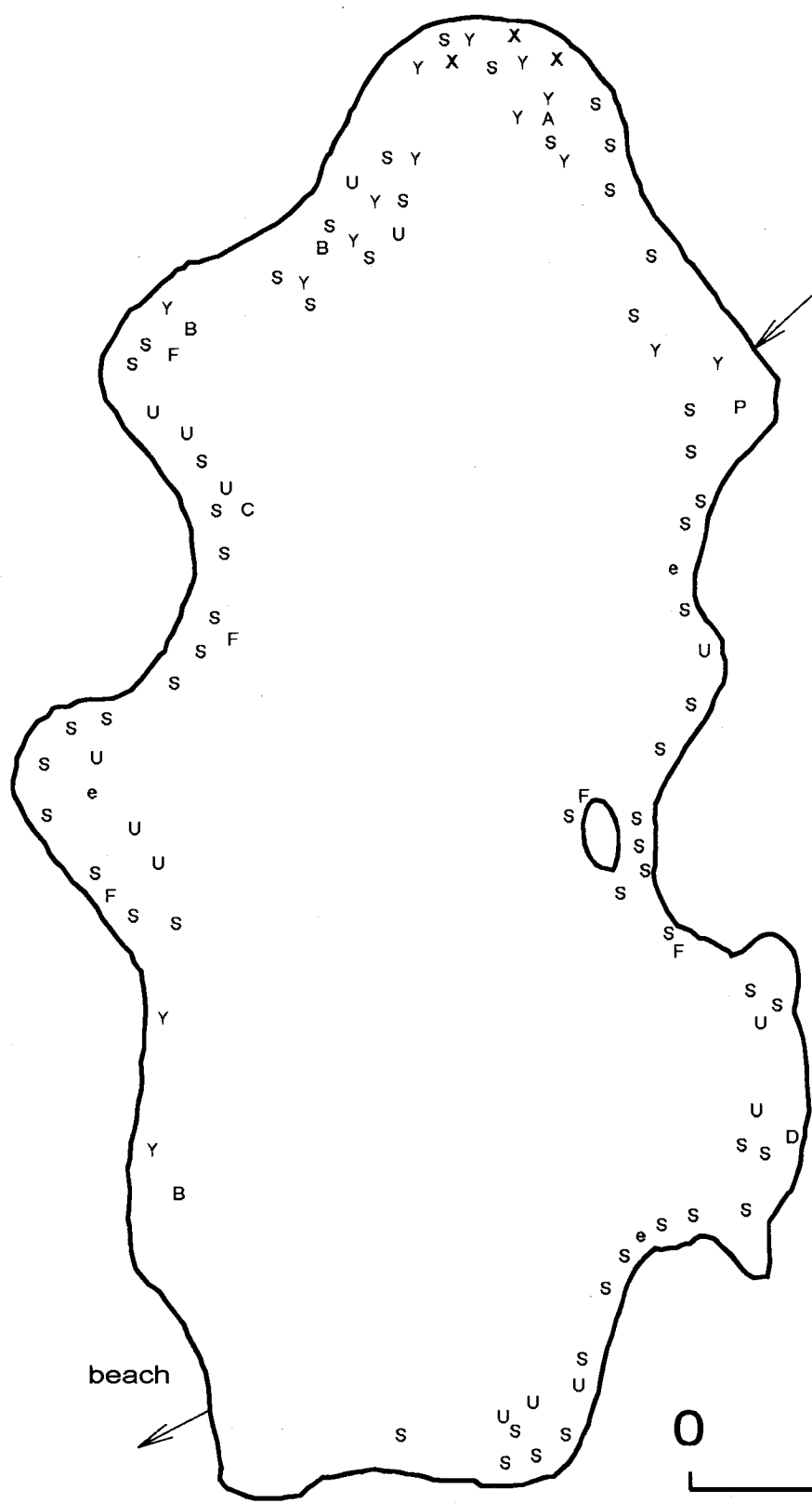
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Wilson Pond

Swanzey

[illegible]